United States Environmental Protection Agency
Washington, D.C. 20460

Water Compliance Inspection Report

Section A: National Data System Coding (i.e., PCS)

Transaction Code	NPDES	yr/mo/day	Inspection Type	Inspector	Fac Type
1 N	WA0026662	140205	C	R	4

Remarks

21 ____ 66

Inspection Work Days	Facility Self-Monitoring Evaluation Rating	BI	QA	Reserved
67 10 69	70	71	72	73 74 75 80

Section B: Facility Data

Name and Location of Facility Inspected *(For industrial users discharging to POTW, also include POTW name and NPDES permit number)*

United States Department of the Interior, Bureau of Reclamation
Elwha Water Treatment Plant
364 Crown Z Water Road, Port Angeles, WA 98362

Entry Time/Date	Permit Effective Date
08:30pm 02/05/14	08/01/09
Exit Time/Date	**Permit Expiration Date**
02:30pm 02/05/14	07/31/14

Name(s) of On-Site Representative(s)/Title(s)/Phone and Fax Number(s)

Tom Hubbard, Project Manager
Veolia Water West Operating Services, Inc.
(503) 582-9655 -phone
(503) 582-9050 -fax

Other Facility Data *(e.g., SIC NAICS, and other descriptive information)*

NAICS 221310 (Water Treatment Plants)
Federal Facility

Name, Address of Responsible Official/Title/Phone and Fax Number

Tom Hubbard, Project Manager
Veolia Water West Operating Services, Inc.
10350 SW Arrowhead Creek Lane, Wilsonville, OR 97070
(503) 582-9655 -phone (503) 582-9050 -fax

Contacted ☑ Yes ☐ No

Section C: Areas Evaluated During Inspection *(Check only those areas evaluated)*

☑ Permit	☑ Self-Monitoring Program	☐ Pretreatment	☐ MS4
☑ **Records/Reports**	☐ Compliance Schedules	☐ Pollution Prevention	
☑ Facility Site Review	☑ Laboratory	☐ Storm Water	
☑ Effluent/Receiving Waters	☑ Operations & Maintenance	☐ Combined Sewer Overflow	
☑ Flow Measurement	☐ Sludge Handling/Disposal	☐ Sanitary Sewer Overflow	

Section D: Summary of Findings/Comments

(Attach additional sheets of narrative and checklists, including Single Event Violation codes, as necessary)

SEV Codes SEV Description

RECEIVED
FEB - 7 2014
Inspection & Enforcement Management Unit (IEMU)

Name(s) and Signature(s) of Inspector(s)	Agency/Office/Phone and Fax Numbers	Date
Jon Klemesrud	EPA R10 OCE/IEMU 206 553 5068	02/07/14
Matt Vojik	EPA R10 OCE/IEMU 206 553 0716	
Signature of Management Q A Reviewer	Agency/Office/Phone and Fax Numbers	Date
Kimberly A. Ogle	IEMU/OCE/EPA 3-0855	3/17/14.

EPA Form 3560-3 (Rev 1-06) Previous editions are obsolete.

ICIS.
2-25-2014

INSTRUCTIONS

Section A: National Data System Coding *(i.e., PCS)*

Column 1: Transaction Code: Use N, C, or D for New, Change, or Delete. All inspections will be *new* unless there is an error in the data entered.

Columns 3-11: NPDES Permit No. Enter the facility's NPDES permit number - third character in permit number indicates permit type for U=unpermitted, G=general permit, etc.. *(Use the Remarks columns to record the State permit number, if necessary.)*

Columns 12-17: Inspection Date. Insert the date entry was made into the facility. Use the year/month/day format (e.g., 04/10/01 = October 01, 2004).

Column 18: Inspection Type*. Use one of the codes listed below to describe the type of inspection:

A	Performance Audit	U	IU Inspection with Pretreatment Audit	!	Pretreatment Compliance (Oversight)
B	Compliance Biomonitoring	X	Toxics Inspection	@	Follow-up (enforcement)
C	Compliance Evaluation (non-sampling)	Z	Sludge - Biosolids	{	Storm Water-Construction-Sampling
D	Diagnostic	#	Combined Sewer Overflow-Sampling	}	Storm Water-Construction-Non-Sampling
F	Pretreatment (Follow-up)	$	Combined Sewer Overflow-Non-Sampling	:	Storm Water-Non-Construction-Sampling
G	Pretreatment (Audit)	+	Sanitary Sewer Overflow-Sampling	~	Storm Water-Non-Construction-Non-Sampling
I	Industrial User (IU) Inspection	&	Sanitary Sewer Overflow-Non-Sampling	<	Storm Water-MS4-Sampling
J	Complaints	\	CAFO-Sampling	-	Storm Water-MS4-Non-Sampling
M	Multimedia	=	CAFO-Non-Sampling	>	Storm Water-MS4-Audit
N	Spill	2	IU Sampling Inspection		
O	Compliance Evaluation (Oversight)	3	IU Non-Sampling Inspection		
P	Pretreatment Compliance Inspection	4	IU Toxics Inspection		
R	Reconnaissance	5	IU Sampling Inspection with Pretreatment		
S	Compliance Sampling	6	IU Non-Sampling Inspection with Pretreatment		
		7	IU Toxics with Pretreatment		

Column 19: Inspector Code. Use one of the codes listed below to describe the *lead agency* in the inspection.

A — State (Contractor)
B — EPA (Contractor)
E — Corps of Engineers
J — Joint EPA/State Inspectors—EPA Lead
L — Local Health Department (State)
N — NEIC Inspectors
O — Other Inspectors, Federal/EPA (Specify in Remarks columns)
P — Other Inspectors, State (Specify in Remarks columns)
R — EPA Regional Inspector
S — State Inspector
T — Joint State/EPA Inspectors—State lead

Column 20: Facility Type. Use one of the codes below to describe the facility.

1 — Municipal. Publicly Owned Treatment Works (POTWs) with 1987 Standard Industrial Code (SIC) 4952.
2 — Industrial. Other than municipal, agricultural, and Federal facilities.
3 — Agricultural. Facilities classified with 1987 SIC 0111 to 0971.
4 — Federal. Facilities identified as Federal by the EPA Regional Office.
5 — Oil & Gas. Facilities classified with 1987 SIC 1311 to 1389.

Columns 21-66: Remarks. These columns are reserved for remarks at the discretion of the Region.

Columns 67-69: Inspection Work Days. Estimate the total work effort (to the nearest 0.1 work day), up to 99.9 days, that were used to complete the inspection and submit a QA reviewed report of findings. This estimate includes the accumulative effort of all participating inspectors; any effort for laboratory analyses, testing, and remote sensing; and the billed payroll time for travel and pre and post inspection preparation. This estimate does not require detailed documentation.

Column 70: Facility Evaluation Rating. Use information gathered during the inspection (regardless of inspection type) to evaluate the quality of the facility self-monitoring program. Grade the program using a scale of 1 to 5 with a score of 5 being used for very reliable self-monitoring programs, 3 being satisfactory, and 1 being used for very unreliable programs.

Column 71: Biomonitoring Information. Enter D for static testing. Enter F for flow through testing. Enter N for no biomonitoring.

Column 72: Quality Assurance Data Inspection. Enter Q if the inspection was conducted as followup on quality assurance sample results. Enter N otherwise.

Columns 73-80: These columns are reserved for regionally defined information.

Section B: Facility Data

This section is self-explanatory except for "Other Facility Data," which may include new information not in the permit or PCS (e.g., new outfalls, names of receiving waters, new ownership, other updates to the record, SIC/NAICS Codes, Latitude/Longitude).

Section C: Areas Evaluated During Inspection

Check only those areas evaluated by marking the appropriate box. Use Section D and additional sheets as necessary. Support the findings, as necessary, in a brief narrative report. Use the headings given on the report form (e.g., Permit, Records/Reports) when discussing the areas evaluated during the inspection.

Section D: Summary of Findings/Comments

Briefly summarize the inspection findings. This summary should abstract the pertinent inspection findings, not replace the narrative report. Reference a list of attachments, such as completed checklists taken from the NPDES Compliance Inspection Manuals and pretreatment guidance documents, including effluent data when sampling has been done. Use extra sheets as necessary.

*Footnote: In addition to the inspection types listed above under column 18, a state may continue to use the following wet weather and CAFO inspection types until the state is brought into ICIS-NPDES: K: CAFO, V: SSO, Y: CSO, W: Storm Water 9: MS4. States may also use the new wet weather, CAFO and MS4 inspections types shown in column 18 of this form. The EPA regions are required to use the new wet weather, CAFO, and MS4 inspection types for inspections with an inspection date (DTIN) on or after July 1, 2005.

NPDES
Inspection Report

United States Department of the Interior
Bureau of Reclamation
Elwha Water Treatment Plant

Prepared by:

Jon Klemesrud
Environmental Protection Agency, Region 10
Office of Compliance and Enforcement
Inspection and Enforcement Management Unit

Table of Contents

[Unless otherwise noted, all details in this inspection report were obtained from conversations with Tom Hubbard, Chet Epperson, or from observations made during the inspection.]

I. Facility Information

Facility Name:	Elwha Water Treatment Plant (EWTP)
Facility Contacts:	Tracy Gilchrist – Project Manager National Park Service U.S. Department of the Interior (303) 969-2329 Tracy_Gilchrist@nps.gov Tom Hubbard – Project Manager Veolia Water West Operating Services, Inc. (503) 582-9655 tom.hubbard@veoliawaterna.com Chet Epperson – O&M Supervisor Veolia Water North America –West, LLC (360) 417-1180 Chet.epperson@veoliawaterna.com
NAICS Code:	221310 – (Water Treatment Plants)
Facility Location:	364 Crown Z Water Road Port Angeles, WA 98362
GPS:	N 48.118353 W -123.549797
Mailing Address:	Tom Hubbard Veolia Water West Operating Services, Inc. 10350 SW Arrowhead Creek Lane Wilsonville, OR 97070
NPDES Permit Number:	WA0026662

II. Inspection Information

Inspection Date:	February 5, 2014
Inspectors:	Jon Klemesrud, Inspector EPA Region 10, OCE / IEMU (206) 553-5068 Matt Vojik, Inspector EPA Region 10, OCE / IEMU (206) 553-0716

Arrival Time:	08:30 AM
Departure Time:	02:30 PM
Weather Condition:	Sunny
Receiving water:	Elwha River

Purpose: This inspection was conducted to document the facility's compliance with the U.S. EPA National Pollutant Discharge Elimination System (NPDES) Individual Permit WA0026662.

III. Permit Information

The EWTP is currently authorized to discharge pollutants from outfall 001 to the Elwha River under the Individual Permit WA0026662. The original effective date of the permit is August 1, 2009 and expires at midnight, July 31, 2014.

IV. Inspection Chronology

On January 30, 2014 EPA inspector Matt Vojik and I contacted Veolia Water Project Manager Tom Hubbard announcing the inspection. Mr. Hubbard works out of Veolia Water's Wilsonville, Oregon office and we agreed upon the February 5, 2014 inspection date. Matt Vojik and I arrived at the EWTP on Wednesday February 5, 2014 at 8:30am.

Upon arriving at the facility, Matt and I met with Mr. Hubbard. At this time Matt and I identified ourselves as EPA inspectors, presented our credentials and provided business cards to Mr. Hubbard. I informed him that the purpose of this visit was to conduct a compliance inspection under the NPDES Individual Permit WA0026662.

Mr. Hubbard was present throughout the inspection. We were also joined by O & M Supervisor Chet Epperson for the majority of the inspection. Mr. Epperson works full time at the EWTP and has been involved with the plant since it became operational.

The EPA inspection consisted of an opening conference to conduct initial introductions and to discuss the purpose and expectations of the inspection. The inspection included a records review, a walk-through of the treatment plant including discharges, sample locations, chemical storage areas, intake structures and the on-site laboratory.

The walk-through was followed by a closing conference where we discussed compliance-related concerns with Mr. Hubbard and Mr. Epperson.

V. Background and Activity

The United States Department of the Interior, Bureau of Reclamation, was issued an EPA NPDES Permit for their discharge to the Elwha River from the Elwha Water Treatment Plant (EWTP). This was EPA's first inspection of the EWTP.

The National Park Service Project Manager for the EWTP is Tracy Gilchrist out of the Denver, Colorado office. Veolia Water West Operating Services, Inc. is currently under

contract to the National Park Service to operate the EWTP. Veolia Water's existing contract is up in October of 2014.

The federally funded treatment plant was built to accommodate existing user demand of the Elwha River during the removal of two dams upstream. It was anticipated that the dam removal would result in the release of high levels of sediment that would interfere with the water users downstream. The EWTP was designed to temporarily remove sediment so that existing users could continue to draw water of an acceptable quality.

The plant is designed to draw water from the Elwha River with a high solids content, remove the solids to acceptable levels, distribute the treated water to municipal and industrial facilities and discharge the removed solids to the river downstream of the user intakes. See Attachment A, Site Map #1 & Site Map #2.

The four users include: Nippon Paper Industries USA, Washington Department of Fish and Wildlife fish-rearing and mussel channels, the Lower Elwha Klallam tribal fish hatchery and the Port Angeles Water Treatment Plant.

Nippon Paper Industries USA receives the largest quantity from the plant at 10 million gallons per day (Mgal/d). The Port Angeles Water Treatment Plant receives the second largest quantity at 2.3 Mgal/d. The treated water, about 14.2 Mgal/day in total, is distributed to the users via gravity, with the exception of the Port Angeles Treatment Plant which is pumped. See Attachment B, Photo #1 to view the industrial water channel.

Construction of the plant started in February of 2008 and the EWTP began operating in standby mode in April of 2010. The first discharge from the plant occurred in December of 2010. The EWTP was originally scheduled to operate during a three to five year period of high sediment transport from dam removal activities. At times the facility has seen influent turbidity >4000 NTU. Higher than projected sediment levels have forced a redesign of the diversion pumping system and repairs to sediment-filtering fish intake screens, all of which have delayed the dam removal process significantly.

The permit authorizes the return of the removed sediment to the river, downstream of the treatment plant and user intakes. See Attachment B, Photo #2 to view the discharge from outfall 001.

VI. Facility Review

The EWTP is located along the Elwha River a few miles southeast from Port Angeles, WA. Also located at the site is the Washington Department of Fish and Wildlife's Operations and Maintenance Compound.

Water is drawn from the Elwha River from an intake structure and pumped through a fish screening process prior to treatment. The EWTP is a sedimentation plant and uses physical and chemical coagulation, flocculation and sedimentation processes to remove solids from the influent water. The plant utilizes 4 large clarifiers in the treatment process, and chemicals are added to adjust pH and to coagulate the solids in the water to accelerate and improve the settling process. The chemicals include Sulfuric Acid, Sodium Hydroxide and Polyaluminum Chloride (PAC) and occasionally small quantities of Polyacrylamide. See Attachment B, Photos #3-#6.

Removed solids are discharged back into the Elwha River via Outfall 001 and certain parameters are monitored for compliance with the NPDES Permit. Downstream surface water monitoring is also conducted and required by the Permit.

The contract operator Veolia Water is responsible for the collection and analysis of all monitoring conducted on-site. The NPDES Permit requires the following monitoring requirements for outfall 001:

Table 1: Effluent Limits and Monitoring Requirements

Parameter	Units	Effluent Limits		Monitoring Requirements		
		Average Monthly Limit	Maximum Daily Limit	Sample Location	Sample Frequency	Sample Type
Flow	CFS	Report	Report	Influent, Effluent	Continuous	Recording
Turbidity	NTU	Report	Report	Influent	Continuous	Recording
pH	s.u.	6.5 - 8.5		Influent, Effluent	5/week	Grab
Temperature	°C	Report	Report	Influent, Effluent	5/week	Grab
Fecal Coliform	#/100ml	Report	Report	Influent, Effluent	10/month	Grab
Total Suspended Solids Daily average influent turbidity > 50 NTU	mg/L	Report	Report	Influent, Effluent	Daily	24-Hour Composite
	lb/day	Report	See I.B.3. and I.B.4.	Influent, Effluent		Calculation
Total Suspended Solids Daily average influent turbidity ≤ 50 NTU	mg/L	Report	Report	Influent, Effluent	Daily	24-Hour Composite
	pounds per CFS of stream flow per day[1]	Report	22	Influent, Effluent		Calculation
Settleable Solids	ml/L	Report	Report	Influent, Effluent	1/month	24-Hour Composite
BOD_5	mg/L	Report	Report	Effluent	1/month	24-Hour Composite
Alkalinity	mg/L as $CaCO_3$	Report	Report	Effluent	1/month	24-Hour Composite
Total Dissolved Solids	mg/L	Report	Report	Influent, Effluent	1/month	24-Hour Composite
Total Aluminum	mg/L	Report	Report	Influent, Effluent	1/month	24-Hour Composite
	lb/day	Report	Report			Calculation
Dissolved Oxygen	mg/L	Report	Report	Influent	1/month	Grab

The majority of samples are analyzed in-house by Veolia Water with the exceptions of total aluminum which is sent to TestAmerica Inc. and fecal coliform which is sent to Clallam County Drinking Water Laboratory.

The facility has had difficulty meeting the Total Suspended Solids effluent limit for when daily average influent turbidity is ≤ 50 NTU, which requires a different reporting calculation.

As stated earlier, higher than projected sediment levels forced a redesign of the plant's intake structure and diversion pump station. Construction of the new diversion pump station was finished in February 2014 and is scheduled to be operational in March of 2014.

VII. Records Review

The following documents were reviewed:

- Current WA-002666-2 Permit – There was a copy of the permit at the treatment plant at the time of inspection. The current permit expires July 31, 2014. According to Mr. Hubbard a NPDES Renewal Application was submitted to EPA a week prior to the inspection.

- Quality Assurance Plan (QAP) – We reviewed the plant's QAP with Mr. Hubbard at the time of inspection. The QAP was developed to assist in planning for the collection and analysis of the effluent and receiving water samples. The QAP was created October 25, 2009 and last updated January 9, 2014.

- Best Management Practices (BMP) Plan – We reviewed the plant's BMP Plan with Mr. Hubbard at the time of inspection. The BMP Plan was created in 2009 and last reviewed November 9, 2012.
- Monitoring Records – We reviewed the plant's monitoring records which included sampling bench sheets used during sample collection. We also reviewed calibration and analytical records used in the on-site laboratory. Monitoring data is transferred to Veolia Water's data management software, Hawkwims.

VIII. Areas of Concern

Observations during the inspection included the identification of four areas of concern. These areas of concern are described as follows:

A. Total Suspended Solids (TSS) Effluent Exceedances

Section I.B.3.c. of the permit identifies the effluent limit as 22 lbs per CFS of stream flow per day for TSS on calendar days when the daily average influent turbidity is less than or equal to 50 NTU.

Discharge Monitoring Reports (DMRs) submitted monthly to EPA must also include daily monitoring data. A review of the data shows the EWTP has had 24 exceedances of the maximum daily limit for TSS since the permit effective date August 1, 2009. Exceedances are summarized below:

Date	Limit (lbs/CFS)	Reported Value (lbs/CFS)
10/01/2012	22	24.3
10/02/2012	22	23.4
10/03/2012	22	24.3
10/04/2012	22	29.3
10/05/2012	22	25.0
07/29/2013	22	24.86
08/01/2013	22	24.69
08/02/2013	22	24.83
08/04/2013	22	25.11
08/05/2013	22	26.79
08/18/2013	22	22.18
08/19/2013	22	30.85
08/23/2013	22	24.68
08/24/2013	22	22.22
08/29/2013	22	56.96
09/02/2013	22	49.65
09/07/2013	22	40.57
09/15/2013	22	29.25
09/18/2013	22	40.79
09/26/2013	22	23.02
09/27/2013	22	29.55
09/28/2013	22	276.79

12/18/2013	22	29
12/19/2013	22	25

As stated in the October 2012 Monthly Report submitted by Veolia Water with the DMR: "Operators are finding that when the turbidity changes from >50 to <50 NTU and the river CFS decreases for an extended time, the sediment discharge will lag. This lag of sediment entered into the plant days prior to being discharged and the calculated using the lower CFS which causes the effluent limit to be exceeded."

B. Annual Surface Water Monitoring Reports

Section I.C.5. of the permit requires all surface water monitoring results be included in an Annual Surface Water Quality Monitoring Summary report and submitted along with the January DMR for the following year.

EPA has only received one Annual Surface Water Quality Monitoring Summary Report, which was submitted in January 2011 for the 2010 reporting year. Mr. Hubbard stated that surface water monitoring is conducted as required by the permit but he had EPA requirements confused with similar data reporting requirements with the State of Washington. Mr. Hubbard stated that he will compile the data and submit the old reports as soon as possible.

I received an email from Mr. Hubbard on February 9, 2014 after the inspection stating that he has submitted the 2012 and 2013 Annual Receiving Water Monitoring Reports and they will be included with the January 2014 DMR submittal.

C. Quality Assurance Plan (QAP)

Section II.A.3. of the permit states that at a minimum the QAP must include map(s) indicating the location of each sampling point.

At the time of inspection the facility's QAP did not have a documented map or description of the location of each sampling point.

Mr. Hubbard stated that he thought a map was included in the QAP and would make the necessary updates as soon as possible. I received an email from Mr. Hubbard on February 9, 2014 after the inspection. Mr. Hubbard included an updated copy of the QAP which included a map of each sampling point.

D. New Diversion Pump Station Stormwater Discharge

At the time of inspection during the facility tour, we visited the new diversion pump station that had just been constructed along the southwest corner of the facility. The pump station was redesigned and built under contract by HDR, Inc. to solve intake problems that the facility has experienced due to the large quantity of sediment being drawn from the river.

The structure for the pump station has a new stormwater discharge from the

structure's basin which is designed to discharge to the Elwha River from an oil/water separator. The basin was not discharging at the time of inspection. See Attachment B, Photo #7 and Photo #8. Mr. Hubbard stated that Veolia Water is currently not under contract to operate the new pump station.

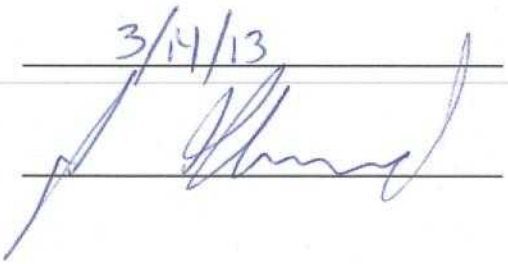
I recommended to Mr. Hubbard that the pump station discharge be added to the recent permit renewal package so that EPA is aware of the new structure and the associated stormwater discharge. I also informed Mr. Hubbard that EPA may contact the facility to discuss the discharge in greater detail.

IX. Closing Conference

A closing conference was held with Mr. Hubbard and Chet Epperson to discuss our inspection observations. We then thanked them for their time and cooperation with the inspection.

Report Completion Date: 3/14/13

Lead Inspector Signature:



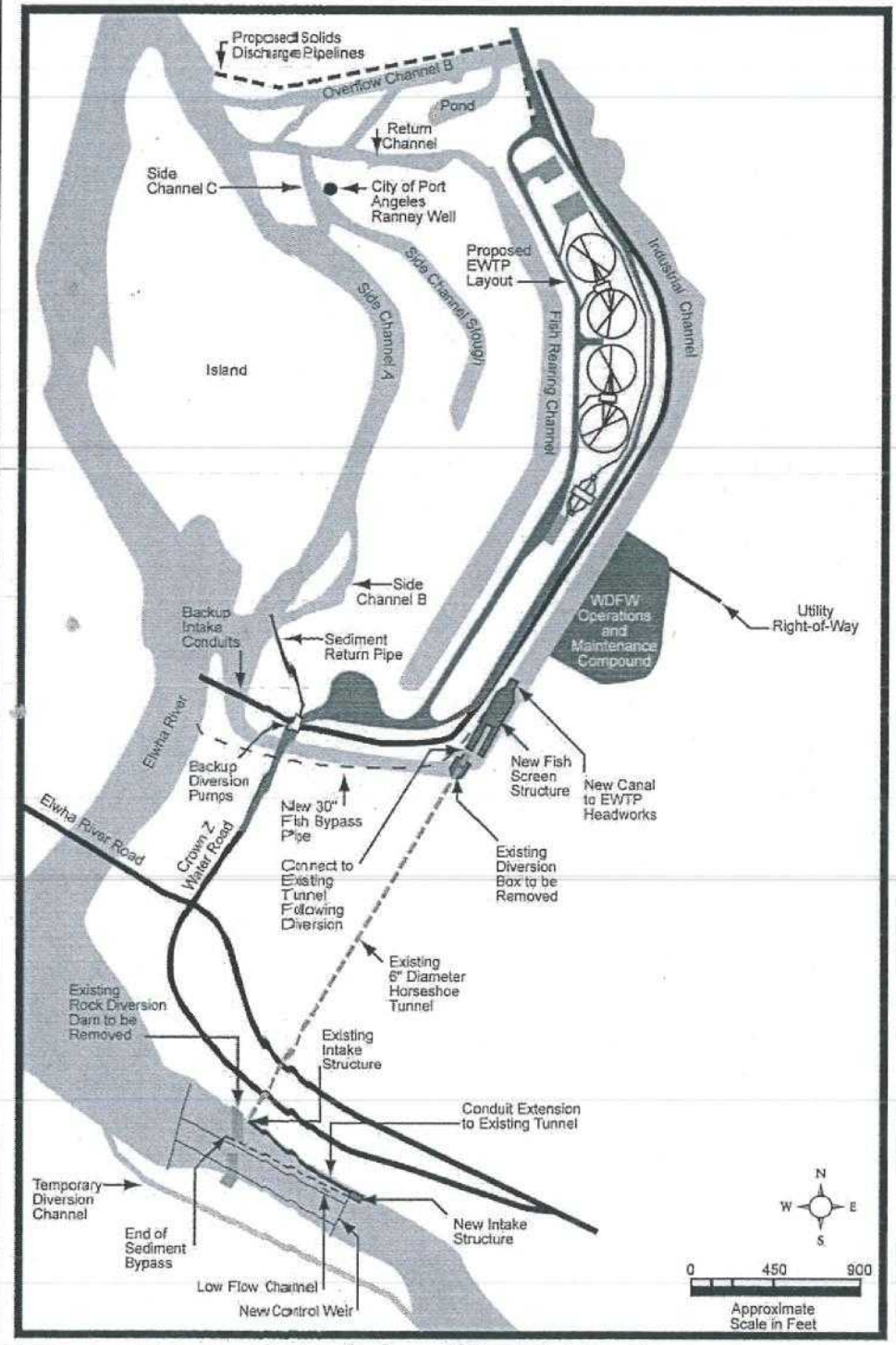
ATTACHMENT A

Site Map #1 & Site Map #2

Site Map #1


Outfall 001
NPDES Discharge
Elwha Water
Treatment Plant
ELWHA RIVER
Elwha River Rd
New Diversion Pump
Station Location
364 Crown Z Water Rd, Port Angeles, WA

Site Map #2



Elwha Surface Water Intake and Elwha Water Treatment Plant Conceptual Designs

ATTACHMENT B

Photo Log

All photos were taken by Matt Vojik on 02/05/2014 at the time of inspection

Photo #1: Southeasterly view of the industrial channel. The intake to the NPI paper mill is located south of the building that appears on the left. The treatment plant appears in the background.

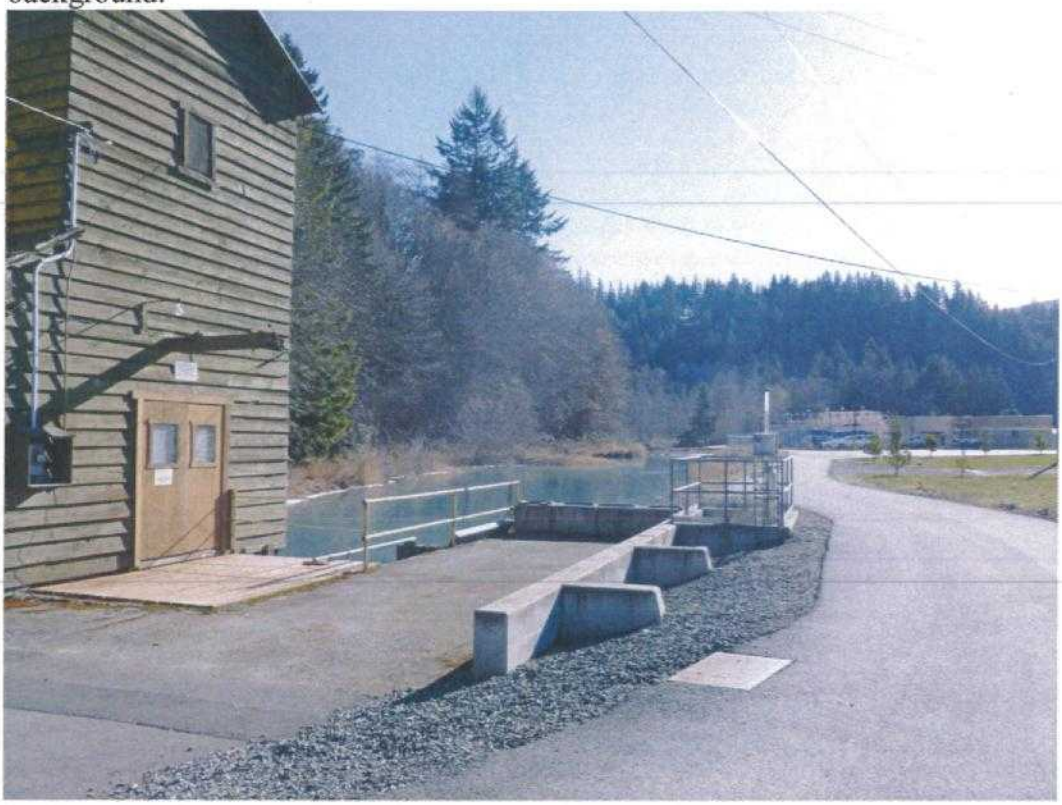


Photo #2: Northwesterly view of the discharge from Outfall 001. The Elwha River appears in the background. The composite sampler appears on the right.

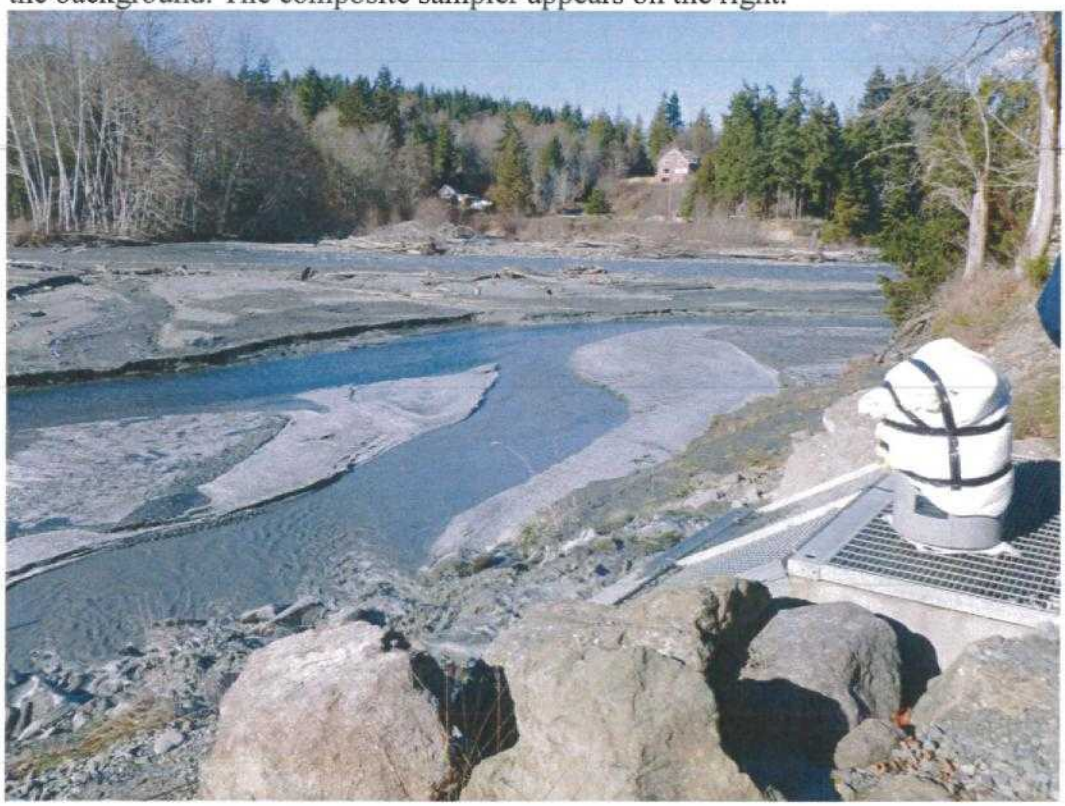


Photo #3: Southeasterly view of the intake structure.

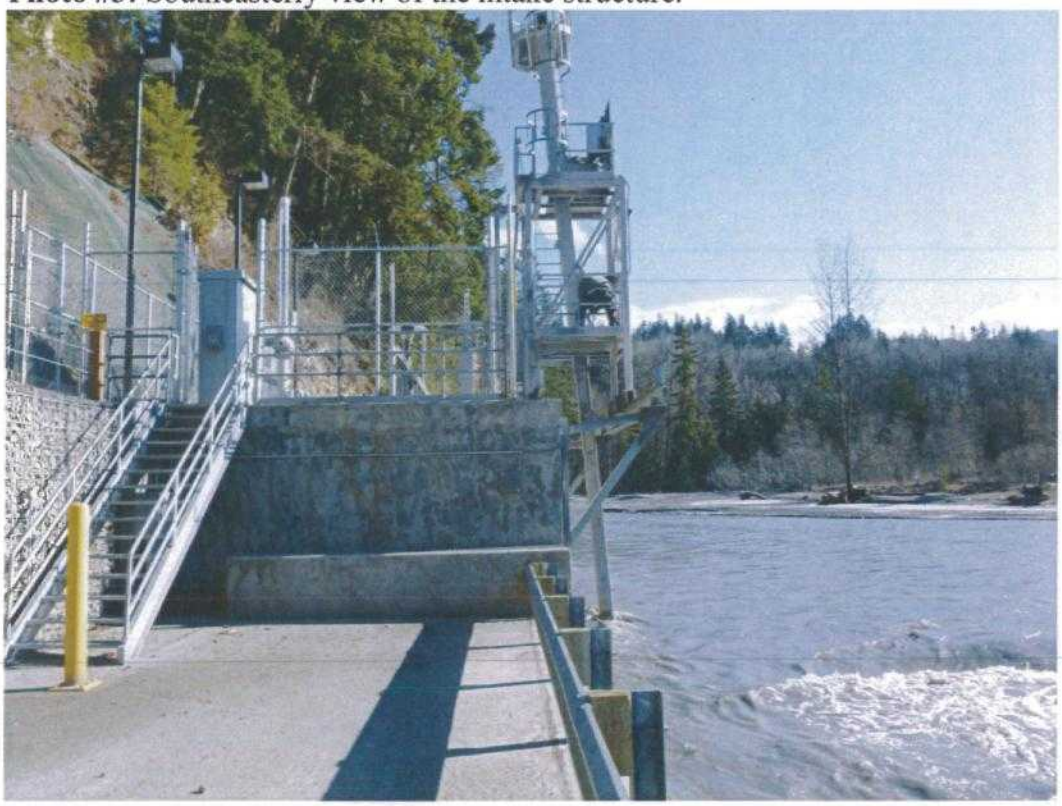


Photo #4: Westerly view of the chemical storage area. The tank on the left is labeled "25% sodium hydroxide" and the tank on the right is labeled "polyaluminum chloride."

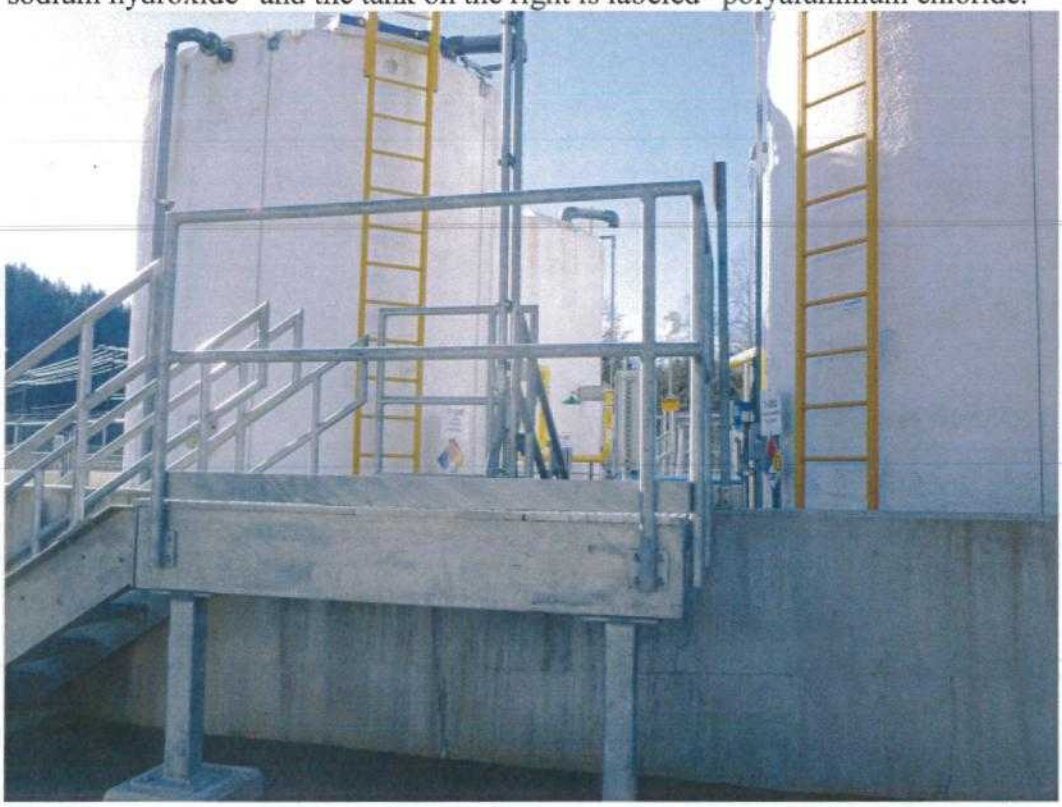


Photo #5: Northwesterly view of the chemical mixing tanks. After mixing, flow is distributed between four sedimentation tanks. A sedimentation tank appears in the background.

Photo #6: View inside the slurry pump station. These pumps deliver slurry from the sedimentation tanks to Outfall 001.

Photo #7: Northerly view of the new diversion pump station. These pumps were recently installed next to the backup diversion pumps. The new diversion pump station was not yet operational at the time of inspection.

Photo #8: View inside the oil/water separator that receives stormwater from the floor drain of the new diversion pump station that appears in the previous photograph. Effluent from the separator is pumped to the Elwha River through a newly constructed outfall.